

# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO	Э.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,958		10/03/2003	Yukihisa Takeuchi	789 118	7284
25191	7590	08/02/2005		EXAMINER	
BURR &		N	GUHARAY, KARABI		
PO BOX 7068 SYRACUSE, NY 13261-7068				ART UNIT	PAPER NUMBER
				2879	
			DATE MAILED: 08/02/2005		

Please find below and/or attached an Office communication concerning this application or proceeding.

		··································/\					
	Application No.	Applicant(s)					
	10/678,958	TAKEUCHI ET AL.					
Office Action Summary	Examiner	Art Unit					
	Karabi Guharay	2879					
The MAILING DATE of this communication ap Period for Reply	ppears on the cover sheet with the c	correspondence address					
A SHORTENED STATUTORY PERIOD FOR REPI THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1. after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a repi - If NO period for reply is specified above, the maximum statutory period - Failure to reply within the set or extended period for reply will, by statut - Any reply received by the Office later than three months after the mailinearned patent term adjustment. See 37 CFR 1.704(b).	. 136(a). In no event, however, may a reply be tin ply within the statutory minimum of thirty (30) day will apply and will expire SIX (6) MONTHS from te, cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).					
Status							
1) Responsive to communication(s) filed on	•	·					
	is action is non-final.						
3) Since this application is in condition for allowance except for formal matters, prosecution as to the ments is							
closed in accordance with the practice under	Ex parte Quayle, 1935 C.D. 11, 45	53 O.G. 213.					
Disposition of Claims							
4) Claim(s) 1-13 is/are pending in the application	☑ Claim(s) <u>1-13</u> is/are pending in the application.						
4a) Of the above claim(s) is/are withdra	awn from consideration.						
5)⊠ Claim(s) <u>1-12</u> is/are allowed.							
6)⊠ Claim(s) <u>13</u> is/are rejected.							
7) Claim(s) is/are objected to.							
8) Claim(s) are subject to restriction and/	or election requirement.						
Application Papers							
9)⊠ The specification is objected to by the Examin	er.						
10)⊠ The drawing(s) filed on 19 May 2004 is/are: a	ı)□ accepted or b)⊠ objected to I	by the Examiner.					
Applicant may not request that any objection to the	- ' '	` '					
Replacement drawing sheet(s) including the correct	-						
11)☐ The oath or declaration is objected to by the E	xaminer. Note the attached Office	Action or form PTO-152.					
Priority under 35 U.S.C. § 119							
12)☐ Acknowledgment is made of a claim for foreign a)☐ All b)☐ Some * c)☐ None of:	, ,	)-(d) or (f).					
1. Certified copies of the priority documen							
2. Certified copies of the priority documen							
3. Copies of the certified copies of the price		ed in this National Stage					
application from the International Burea * See the attached detailed Office action for a lis		ad					
ose the attached detailed Office action for a lis	to, the octanica copies not receive	u.					
Attachment(s)							
1) X Notice of References Cited (PTO-892)	4) Interview Summary	(PTO-413)					
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Da	ate					
<ul> <li>Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08 Paper No(s)/Mail Date</li> </ul>	) 5)	atent Application (PTO-152)					

# Information Disclosure Statement

The listing of references in the specification (in this case, on page 2) is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

# **Drawings**

Figure 22 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

## Specification

The disclosure is objected to because of the following informalities:

On page 3, line 5 "emitter 104" should be changed to "emitter 102".

Appropriate correction is required.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Application/Control Number: 10/678,958 Page 3

Art Unit: 2879

# Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 13 is rejected under 35 U.S.C. 102(b) as being anticipated by Ito et al. (JP 05-325777).

Regarding claim 13, Ito et al. discloses an electron emitter (Figs 1-2) comprising an emitter element (ferroelectric substrate 2, 22) made of dielectric material (see Paragraph 0014 of English Translation) a first electrode (3,23) in contact with a first surface of the emitter, and a second electrode (1, 21) in contact with a second surface of the emitter (2, 22, and English Abstract), at lest the first electrode (3, 23) has a plurality of through regions and the emitter element is exposed through the through region (see drawings), the emitter element produces an electrical condenser, as being a dielectric sandwiched between two conductor and through regions of the first electrodes produce a cluster of plural electrical capacitors (each through region provide dielectric between two segments of first electrodes forming a capacitor) between the first electrode (3, 23) and the emitter element (2, 22).

### Allowable Subject Matter

Claims 1-12 are allowed over the prior art of record.

## Examiner's Reasons for Allowance

The following is an examiner's statement of reason for allowance:

Art Unit: 2879

Regarding claim 1, the prior art of record neither shows nor suggests an electron emitter comprising all the limitations of claim 1, particularly comprising the limitation of the first electrode has a peripheral surface around each of the through regions, the peripheral surface facing the emitter and spaced from the emitter element.

Page 4

Claims 2-12 are allowed being dependent on allowed base claim 1.

#### Other Prior Art Cited

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Chen et al. (US 6,911,768); Akiyama et al. (US 6274881); Chen et al. (US 6882100).

#### **Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karabi Guharay whose telephone number is (571) 272-2452. The examiner can normally be reached on Monday-Friday 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <a href="http://pair-direct.uspto.gov">http://pair-direct.uspto.gov</a>. Should you have questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Karabi Guharay Patent Examiner Art Unit 2879